

Amendments To The Claims:

Please amend the claims as shown.

1 – 9 (canceled)

10. (new) A method for determining a fluctuation of fuel properties (H_u , ρ) of an operating power plant, comprising:

determining an efficiency factor (η) for the power plant based on current operating parameters (P , m , V , p , T) of the power plant;

determining heating value (H_{u0}) and the standard density (ρ_0) of the fuel as reference variables by a rolling averaging during the operation of the power plant;

determining an efficiency factor (η) relative to a reference operating state as a function of time; and

determining that a change in the fuel properties has occurred based on a change over time in the efficiency factor (η).

11. (new) The method as claimed in claim 10, wherein the current operating parameters (P , m , V , p , T) are selected from the group consisting of: power rating (P) of the power plant, mass flow (m) of the fuel, volume flow (V) of the fuel, pressure (p) of the fuel, and temperature (T) of the fuel.

12. (new) The method as claimed in claim 11, wherein the efficiency (η) is determined by direct recording of the mass flow (m) of the fuel.

13. (new) The method as claimed in claim 11, wherein the efficiency is determined by recording the volume flow (V), the pressure (p) and the temperature (T) of the fuel.

14. (new) The method as claimed in claim 13, wherein the efficiency is determined while not considering the real gas factor (z).

15. (new) The method as claimed in claim 11, wherein the efficiency is determined by measuring differential pressure (Δp), pressure (p) and temperature (T) of the fuel.

16. (new) The method as claimed in claim 15, wherein the efficiency is determined while not considering the real gas factor (z).

17. (new) The method as claimed in claim 16, wherein a change in the mass-related heating value (Hu_m) of the fuel is concluded as a change in the fuel property (Hu, ρ).

18. (new) The method as claimed in claim 17, wherein a change in the volume-related heating value (Hu_v) of the fuel is determined as a change in the fuel property (Hu, ρ).

19. (new) The method as claimed in claim 18, wherein a change in the Wobbe index $\left(\sqrt{\frac{\rho_{N,0}}{\rho_N} \frac{Hu_v}{Hu_{v,0}}} \right)$ is determined as a change in the fuel property (Hu, ρ).

20. (new) The method as claimed in claim 19, wherein the change in the fuel properties (Hu, ρ) is quantified using mathematical methods.